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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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09/877,344

06/08/2001

Santhana Krishnamachari

US 010285

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7590

06/15/2005

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

SENF, BEHROOZ M

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|--------------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/877,344 | KRISHNAMACHARI, SANTHANA | |
| | Examiner | Art Unit | |
| | Behrooz Senfi | 2613 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,6-11,14-17,22 and 24-32 is/are rejected.
- 7) ☒ Claim(s) 2-5,12,13,18-21,23 and 33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's arguments (filed 12/21/2004, fwd 3/17/2005) with respect to 35 U.S.C 103(a) rejection of claims 1 - 33 have been considered but are moot in view of the new ground of rejection.

Claim Objections

2. Claim 23 is objected to because of the following: claim 23 indicates that “decoding system that decodes the streams of MB data back into a single stream of compressed data”. How a MB can be decoded back to compressed data?

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 7, 10, 17, 26, 31 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Pauls (US 6,025,888).

Regarding claims 1 and 7, Pauls '888 discloses, “determining a relative importance of each macro-block in a video frame based on how often each macro-block acts as a reference macro-block (i.e. , abstract, lines 7 – 16, col. 2, lines 40 – 67, col. 4, lines 49 – 67 and col. 5, lines 35 – 45) and “prioritizing each of the macro-blocks in the video frame based on the relative importance” (i.e. abstract, lines 7 – 17).

Regarding claims 10, 17 and 26, the limitations claimed are substantially similar to claim 1, therefore, the grounds for rejecting claim 1 also applies here.

Regarding claims 31 and 32, Pauls '888 discloses, "a decoder for decoding multi-priority compressed video data" (i.e. fig. 1, decoder 44) and "error protection scheme to each of a plurality of data" (i.e. abstract, error recovery), furthermore the improve error recovery as disclosed by Pauls '888 is computer implemented and software/program product stored on a recordable media to execute the process would be necessitated by the system.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7 - 9, 11, 14 - 16, 22, 24, 25, 27, and 29 - 30, are rejected under 35 U.S.C. 103(a) as being unpatentable over Pauls '888 in view of Hagai et al (US 6,414,972).

Regarding claims 7, 15 and 24 Pauls '888 teaches, "determining a relative importance of each macro-block in a video frame based on how often each macro-block acts as a reference macro-block and prioritizing each of the macro-blocks in the video frame based on the relative importance" as discussed above, in claim 1. Pauls '888 does not explicitly teach "determining pixel overlapping". However such features are well known and used in the prior art of the record as evidenced by Hagai '972 (i.e. col. 4, lines 65 - 67 and cols. 10 - 11, lines 49 - 7). It would have been obvious to one skilled in the art at the time of the invention was made to

use the teaching of Hagai '972 and modify the error recovery system of Pauls to detect overlapping order to establish priority among objects.

Regarding claim 29, the limitations claimed are substantially similar to claim 7 and are covered.

Regarding claims 9, 16, 25 and 30, combination of Pauls '888 and Hagai '972 teach, "residual DCT coefficients of the MB" (i.e. col. 2, lines 32 – 33 of Pauls).

Regarding claims 8, 11, 14, 22 and 27, combination of Pauls '888 and Hagai '972 teach, "assigning each Mb based on the priority decision" reads on (i.e. fig. 1, 107 of Hagai). Examiner takes official notice that "MB comprises a complete frame of video" is well known in the prior art of the record.

Allowable Subject Matter

7. Claims 2 – 5, 12 – 13, 18 – 21 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is an examiner's statement of reasons for allowance: the prior art of the record fails to anticipate or rendered obvious the conditional limitation of "determining how often each MB in the current P-frame acts as a reference MB, by reading current P-frame and examining MV's from previous and subsequent B-frames and from a subsequent P-frame if it exists" as cited in claims 2, 12, 18 and 33, and "determining how often each MB in the current I-frame acts as a reference MB, by reading current I-frame and examining MV's from previous and subsequent B-frames and from a subsequent P-frame" as cited in the claims 4, 13 and 20.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(571)272-7339**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chris Kelley** can be reached on **(571)272-7331**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:


(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

B. M. S. B. M. S.

5/28/2005


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600